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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)

Complete if Known **Application Number** 10/634,419 Filing Date August 5, 2003 First Named Inventor James Lester Hicks Art Unit 1624 **Examiner Name** V. Balasubramanian **Attorney Docket Number** PC25286A

U. S. PATENT DOCUMENTS Examiner Document Number Publication Date Name of Patentee or Pages, Columns, Lines, Where MM-DD-YYYY Applicant of Cited Document Relevant Passages or Relevant Initials* Number-Kind Code^{2 (# known)} Figures Appear US- 6,008,243 M 12-28-1999 Bender et al. US- 2003/0229103A1 Weithmann et al. 12-11-2003 M US- 5,130,317 07-14-1992 Baader et al. W US- 5,260,323 11-09-1993 Baader et al. ^{US-}5,519,038 05-21-1996 Baader et al. W US US-US US-US-US-US-US-118 US-US-US-US-

		FORE	IGN PATENT DOCU	JMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ³ (<i>if known</i>) MM-DD-YYYY			Or Relevant Figures Appear	T°
ĺΜ		WO 01/63244	08-30-2001	Chen et al.	•	
M		WO 00/09485	02-24-2000	McClure et al.		
M		WO 01/12611	02-22-2001	Blagg		
Ш		WO 02/34726	05-02-2002	Noe et al.		
M		WO 02/34753	05-02-2002	Bronk et al.		
W		EP 0 935 963	08-18-1999	McClure et al.		

Examiner	0/10	Date	9/24/26
Signature	V. Balasubramenan	Considered	0101100

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Subsuit	269 101 101111 1448/1	10			Application Number	10/634,419	
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Sheet	2	10		5	Attorney Docket Number	PC25286A	

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U. S. PATENT DOCUMENTS Pages, Columns, Lines, Where Publication Date Name of Patentee or Examiner Cite **Document Number** Relevant Passages or Relevant Initials* MM-DD-YYYY Applicant of Cited Document Figures Appear Number-Kind Code² (# known) US-US-US-US-US-UŞ-US-US-US-ŪS-US-US-US-US-US-IIS. US-US-US

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Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T°
M		EP 1 138 680	10-04-2001	Noe		
M		CA 2,082,076	05-06-1993	Weidmann et al.		
V		WO 01/29010	04-26-2001	Ali et al.		
Ш		EP 0 420 763	04-03-1991	Miyasaka et al.		
M.		DD 284 226	11-07-2000	Guertnor et al.		
W		EP 1 069 110	01-17-2001	Kimura et al.		

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Examiner Signature	1. Balasubranoviam	Date Considered 2/27/	06

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO **Application Number** 10/634,419 Filing Date August 5, 2003 INFORMATION DISCLOSURE First Named Inventor James Lester Hicks STATEMENT BY APPLICANT Art Unit 1624. (Use as many sheets as necessary) Examiner Name V. Balasubramanian

Sheet

Attorney Docket Number

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Initials*	No.	Foreign Fateri Document	Date	Applicant of Cited Document	Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	٣
M		WO 01/72718	10-04-2001	Miyata et al.		
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Examiner Signature	V. Balusubramonay	Date Considered	2/26/05

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Sheet	4	of	5	Attorney Docket Number	PC25286A			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
M		Office Action mailed June 16, 2003, in U.S. 10/264,764	
M		International Search Report in PCT/IB03/03525	
M		CHEN et al., "Structure-Based Design of a Novel, Potent, and Selective Inhibitor for MMP-13 Utilizing NMR Spectroscopy and Computer-Aided Molecular Design", J. Am. Chem. Soc., 2000, Vol. 122, pp. 9648-9654	
М		LOVEJOY et al., "Crystal structures of MMP-1 and -13 reveal the structural basis for selectivity of collagenase inhibitors", Nature Structural Biology, Vol. 6, No. 3, March 1999, pp. 217-221	
M		MOY et al., "High-resolution Solution Structure of the Catalytic Fragment of Human Collagenase-3 (MMP-13) Complexed with a Hydroxamic Acid Inhibitor", J. Mol. Biol., 2000, Vol. 302, pp. 671-689	
M		MITCHELL et al., "Cloning, Expression, and Type II Collagenolytic Activity of Matrix Metalloproteinase- 13 from Human Osteoarthritic Cartilage", J. Clin. Invest., Vol. 97, No. 3, February 1996, pp. 761-768	
M		NEUHOLD et al., "Postnatal expression in hyaline cartilage of constitutively active human collagenase-3 (MMP-13) induces osteoarthritis in mice", J. Clin. Invest., Vol. 107, No. 1, January 2001, pp. 35-44	
y		DAHLBERG et al., "Selective Enhancement of Collagenase-Mediated Cleavage of Resident Type II Collagen in Cultured Osteoarthritic Cartilage and Arrest with a Synthetic Inhibitor That Spares Collagenase 1 (Matrix Metalloproteinase 1)", Arthritis & Rheumatism, Vol. 43, No. 3, March 2000, pp. 673-682	
М		BILLINGHURST et al., "Comparison of the Degradation of Type II Collagen and Proteoglycan in Nasal and Articular Cartilages Induced by Interleukin-1 and the Selective Inhibition of Type II Collagen Cleavage by Collagenase", Arthritis & Rheumatism, Vol. 43, No. 3, March 2000, pp. 664-672	
M		BILLINGHURST et al., "Enhanced Cleavage of Type II Collagen by Collagenases in Osteoarthritic Articular Cartilage", J. Clin. Invest., Vol. 99, No. 7, April 1997, pp. 1534-1545	

Examiner	1/ 1/ 1	Date	01-01-1
Signature	V. Balasubsawondy	Considered	2/27/06

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V	7,		·	Application Number	10/634,419	
INFO	PRMATION	N DIS	CLOSURE	Filing Date	August 5, 2003	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	James Lester Hicks	
(Use as many sheets as necessary)				Art Unit	1624	
				Examiner Name	V. Balasubramanian	
Sheet	5	of	5	Attorney Docket Number	PC25286A	

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Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
M		HIROTA et al., "Novel Synthesis of Pyrido[3,4-d]Pyrimidines, Pyrido[2,3-d]-Pyrimidines and Quinazolines via Palladium-Catalyzed Oxidative Coupling", Heterocycles, Vol. 37, No. 1, 1994, pp. 563-570	
W)		WERNICKE et al., "Cloning of Collagenase 3 from the Synovial Membrane and Its Expression in Rheumatoid Arthritis and Osteoarthritis", The Journal of Rheumatology, Vol. 23, No. 4, 1996, pp. 590-595	
M		REBOUL et al., "The New Collagenase, Collagenase-3, Is Expressed and Synthesized by Human Chondrocytes but not by Synoviocytes", J. Clin. Invest., Vol. 97, No. 9, May 1996, pp. 2011-2019	
IM		FREEMONT et al., "In situ zymographic localisation of type II collagen degrading activity in osteoarthritic human articular cartilage", Ann. Rheum. Dis., Vol. 58, 1999, pp. 357-365	
M		TARANTINO et al., "Inhibitors of DNA Polymerase III as Novel Antimicrobial Agents against Gram-Positive Eubacteria", Antimicrobial Agents and Chemotherapy, Vol. 43, No. 8, 1999, pp. 1982-1987	
M		MAKINO et al., Chemical Abstracts Service AN 1995:392279 for "CAPLUS ONLINE"	
М		FUCHIGAMI et al., Chemical Abstracts Service DN 106:18608 for "CAPLUS ONLINE"	
M		Chem. Abst. Serv. Order No. AB-323/13887016 for "Chemcats Online"	

Examiner		Date	2/2710
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